What is claimed is:

1. A distributed type input buffer switch system, comprising:

at least one input data processing means matched to an input port for storing and managing input data by target output ports, requesting arbitration for switching, and storing and managing information on an arbitration-requested data;

an arbitration means for managing an arbitration request signal received from the input data processing means according to the input data processing means and the target output port and performing arbitration according to an arbitration request; and

a switching means for receiving data from the input data processing means and transmitting the same to the output ports by performing switching according to a command from the arbitration means.

2. The system according to claim 1, wherein the input data storing means comprises:

at least one first input information storing means for storing and managing input data inputted through the input ports by output ports;

at least one second input information storing means matched to the first input information means for storing and managing information on an arbitration-requested data for

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switching by output ports; and

an input information control means for transmitting an arbitration request signal for an input data stored and managed by the first input information storing means and controlling the data for which the arbitration request signal is transmitted to be stored and managed by the second input information storing means.

3. The system according to claim 2, wherein the input data storing means further comprises:

means for transmitting the arbitration request signal for the input data to the arbitration means, if the second input information storing means has any free space for storing information because the cell address information on more than the predetermined number of input data is not stored in the second input information storing means, wherein the input data are managed and stored by the first input information storing means and are queuing for an arbitration;

means for shifting existing cell address information stored in the second input information storing means;

means for storing sequentially the cell address information on the input data in the second input information storing means according to an input order; and

means for changing information on data to be processed to thereby process an arbitration request for the next input data in a queue.

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4. The system according to claim 2, wherein the input data storing means another further comprises:

means for checking a cell address of the oldest input data stored and managed by the second input information storing means;

means for searching and transmitting the input data to the switching means by using the checked cell address;

means for indicating that there is no cell address that is stored and managed in a corresponding element of the second input information storing means in which a cell address had been stored before;

means for storing the cell address from the second input information storing means in an idle cell address storing means in order to store new input data, if the new input data is inputted to the input data processing means.

5. The system according to claim 2, wherein the arbitration means comprises:

at least one request information storing means for storing and managing a transmission request signal transmitted from the input data processing means;

an arbitration processing means for processing arbitration so that switching of an arbitration request information stored in the request information storing means is performed;

an arbitration request control means for requesting the arbitration processing means to perform arbitration by

checking if an arbitration request information is stored in the request information storing means.

6.   The system according to claim 5, wherein the first input information storing means, second input information storing means, and request information storing means sequentially manage a given data according to an input order.

7.   The system according to claim 5, wherein the transmission of data and signals is achieved by a pipeline operation between elements.

8.   In a method for processing input data adapted to a distributed-type input buffer switch system, a method for processing input data, comprising:

a first step in which an input data processing means stores and manages an input data received from a matched input port;

a second step in which the input data processing means transmits an arbitration request signal for the input data and storing and managing information on the input data for which the arbitration request signal is transmitted;

a third step in which the arbitration request signal transmitted to an arbitration means is managed according to the input data processing means and the target output port;

a fourth step in which arbitration is performed by checking an arbitration request according to the input data

processing means and the target output port and the result is transmitted to the input data processing means and a switching means; and

a fifth step in which the input data processing means performs processing of the input data by checking information on the stored input data upon receipt of an output grant signal and transmitting the same to the switching means.

9. The method according to claim 8, wherein the first step further comprises:

a sixth step in which the input data processing means receives an input data from the input port matched thereto; and

a seventh step in which the input data is stored and managed by a corresponding first input information storing means by target output ports.

10. The method according to claim 9, wherein the second step further comprises:

an eighth step in which it is checked if information on more than a predetermined number of input data is stored in the second input information storing means being matched to the first input information storing means and storing information on an input data transmitted by generating an arbitration request signal, in order to perform an arbitration request for data of which an arbitration request signal is not generated, among input data managed and stored by the first

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input information storing means; and

a ninth step in which the eighth step is repeatedly performed after a predetermined time, if the information on more than the predetermined number of input data is stored, as the result of the checking in the eighth step; and

a tenth step in which an arbitration request signal for an input data of which an arbitration request is not performed is transmitted to the arbitration means, and the information on the data is stored in the second input information storing means, if the information on more than the predetermined number of input data is not stored, as the result of checking in the eight step.

11.   The method according to claim 10, wherein the tenth step further comprises:

an eleventh step in which an arbitration request signal for the input data managed and stored by the first input information storing means and queuing for an arbitration is transmitted to the arbitration means, if the second input information storing means has any free space for storing information because the cell address information on more than the predetermined number of input data is not stored in the second input information storing means;

a twelfth step in which the existing cell address information stored in the second input information storing means is shifted, and the cell address information on the input data is sequentially stored in the second input

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information storing means according to an input order; and

a thirteenth step in which the first input information storing means changes information on data to be processed so that it can process an arbitration request for the next input data in a queue.

12. The method according to claim 8, wherein the third step further comprises:

a sixth step for checking the input data processing means and target output port of the arbitration request signal transmitted to the arbitration means;

a seventh step for shifting the existing arbitration request information from the request information storing means corresponding to the checked input data processing means and target output port; and

an eighth step for sequentially storing the transmitted arbitration request signal in the request information storing means according to an input order.

13. The method according to claim 8, wherein the fourth step further comprises:

a sixth step for checking if an arbitration request information is stored in the request information storing means according to the input data processing means and target output port.

a seventh step for generating an arbitration request vector for the request information storing means having

arbitration request information to thus transmit the same to an arbitration processing means;

an eighth step for performing an arbitration by checking the arbitration request vector from each request information storing means by the arbitration processing means;

a ninth step for transmitting the result of performing the arbitration to the input data processing means and a switching means; and

a tenth step for deleting the oldest arbitration request information of the arbitration request information stored in the request information storing means, which is arbitrated to be granted to be outputted.

14.   The method according to claim 13, wherein the fifth step further comprises:

a fourteenth step in which the input data processing means having received an output grant signal from the arbitration means checks the cell address of the oldest input data stored and managed by the second input information storing means;

a fifteenth step in which the input data is searched and transmitted to the switching means by using the checked cell address;

a sixteenth step in which it is indicated that there is no cell address stored and managed in the corresponding element of the second input information storing means in which a cell address had been stored before;

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a seventeenth step in which, if a new input data is inputted to the input data processing means, the cell address from the second input information storing means is stored in an idle cell address storing means so as to stored the input data.